Information Science and Technology

The Information Science and Technology field draws upon computer science, computational science, and mathematics to provide innovation in the areas of data processing and management and to derive actionable information from data. Information Science and Technology capabilities underlie most science endeavors at LANL.

This section includes contributions to the field of Information Science and Technology in the broad area of applied computer science. The 17 papers in this section range in breadth from quantum mechanics—applied to photosynthetic properties—to social interaction—applied to epidemiology and education. In between are several descriptions of tools and methods to be applied in scientific arenas relevant to LANL or against the various looming barriers in large-scale computation itself. Several papers address the movement of data in various ways; another paper addresses memory correction in an era of unprecedented-scale deployments; and three papers exploit the unique features of graphics processing units for future scientific gain.